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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,229	08/31/2000	Thomas E. Saulpaugh	5181-6330	4610

7590	12/01/2003

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EXAMINER
MANIWANG, JOSEPH R

ART UNIT	PAPER NUMBER
2142	8

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12/17/02</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-43</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-43</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>08/31/00</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

13)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
    since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
    37 CFR 1.78.

   a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
    reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4-7</u> .   6)☐ Other: .

DETAILED ACTION

Priority

1.   Application claims priority from the following provisional applications: Provisional

Application 60/202,975 filed on May 9, 2000; Provisional Application 60/208,011 filed

on May 26, 2000; Provisional Application 60/209,430 filed on June 2, 2000; Provisional

Application 60/209,140 filed on June 2, 2000; Provisional Application 60/209,525 filed

on June 5, 2000. The effective filing date of the application is May 9, 2000.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3.   Claims 1-4, 6-8, 14-20, 22-24, 30-32, 34-38, 42, and 43 are rejected under 35

U.S.C. 102(a) as being anticipated by Czerwinski et al. ("An Architecture for a Secure

Service Discovery Service", Fifth Annual International Conference on Mobile Computing

and Networks (MobiCOM '99), Seattle, WA, August 1999), hereinafter referred to as

Czerwinski.

4.   Czerwinsky disclosed a system to provide service discovery between servers

and clients. The system comprised clients, services, and SDS servers (see section 2).

The SDS server received a service query from a client as an XML template, which was

used to match service descriptions against (see sections 2.3 and 3.1). The XML

template provided a set schema defining the clients desired interface to the service (see

section 2.3 and Figure 2). SDS servers controlled access to data based on client

capabilities (see section 3.4). Czerwinsky disclosed the use of certificates for

authentication of each of the message endpoints (see section 3.5.3). The system

verified the digital signatures attached to messages, which identified the components of

the system (see section 3.3). Services could also send messages to be authenticated

by SDS servers, which were in the form of the service descriptions broadcast to clients

(see section 3.2).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hind et al. (U.S. Pat. No. 6,585,778), hereinafter referred to as Hind, and further in view

of Czerwinski et al. ("An Architecture for a Secure Service Discovery Service", Fifth

Annual International Conference on Mobile Computing and Networks (MobiCOM '99),

Seattle, WA, August 1999), hereinafter referred to as Czerwinski.

7.   Hind disclosed a system for transferring data in a distributed networking

computing environment. Hind sought to provide a messaging system for an

environment in which there could exist different implementations and information

formats between the computers in the network (see column 3, lines 7-12). To

accommodate this heterogeneous environment, the system comprised intermediaries

(see column 7, lines 19-25) that processed a client request, provided a document type

definition that referenced data policy objects for a document, generated the policy

enforcement objects referenced, and provided an output document adhering to the

instantiated policy object (see column 4, lines 12-32). Input documents were also

processed to conform to a particular style by using style sheets (see column 7, lines 47-

54). Style sheets defined an input interface for use in creating an output, and were

used to verify the syntax of the source document (see column 8, lines 21-29). The use

of style sheets ensured the transferred documents adhered to the particular device's

capabilities by extracting a subset of information from the whole of the information within

the source documents (see column 8, lines 38-45). Hind disclosed the use of XML in

both input documents and output documents (see column 4, lines 35-37).

8.   Hind did not disclose the use of credentials for authentication of messages.

However, Hind mentioned the desire to restrict the use of certain data for certain users

(see column 3, lines 7-18) and also acknowledged security factors involved in data

policy, describing the use of a valid password for accessing information (see column 1,

lines 48-54). The solution presented by Hind to apply data policy advantageously at

intermediaries essentially filtered data according to a policy (see column 8, lines 2-7),

but did not specifically mention anything further about possible security issues. This

would have led one of ordinary skill to search related art to expound upon the security

element hinted to by Hind to aid in data restriction.

9.   In a related art of client/server messaging, Czerwinsky disclosed a system to

provide service discovery between servers and clients. The system comprised clients,

services, and SDS servers (see section 2). The SDS server received a query from a

client, authenticated the message, and received a referenced XML template, which was

used to match against the client query (see sections 2.3 and 3.1). SDS servers

controlled access to data based on client capabilities (see section 3.4). Czerwinsky

disclosed the use of certificates for authentication of each of the message endpoints

(see section 3.5.3). Czerwinsky offered such an authentication method to protect

against "man-in-the-middle" attacks, protecting information sent between all client,

service, and SDS server intermediaries (see section 2.4). Czerwinsky stated that such

a security model aided in protecting sensitive information (see section 7).

10.   It was a goal of Hind to restrict access to data according to client capabilities, but

Hind also recognized restricting data access by client type or password to protect

sensitive information (see column 2, line 49 through column 3, line 12). Czerwinsky

disclosed a similar message processing method in which certificates were used to

control both data access and authentication (see section 3.5.3), aiding in the protection

of sensitive information (see section 7). As it was a desire of Hind to restrict access to

potentially sensitive data, it would have been obvious to one of ordinary skill in the art to

combine the teachings of Hind and Czerwinsky to provide a system using authentication

certificates processed by an intermediary, since this would further restrict access to

sensitive data as desired by Hind.

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

12.   De Jong (U.S. Pat. No. 6,385,645) disclosed a system for communicating

between different devices using interaction contexts.

13.   Mein et al. (U.S. Pat. No. 6,457,066) disclosed the Simple Object Access

Protocol (SOAP) for messaging between distributed components.

14.   Ims (U.S. Pat. No. 6,542,908) disclosed a system for transforming software

components according to client/server capabilities.

15.   Sundaresan (U.S. Pat. No. 6,569,207) disclosed generating classes from XML

schemas for instantiating objects under the classes.

16.   Linden et al. (U.S. Pat. No. 6,549,773) disclosed a system for transferring data

between mobile stations through a gateway.

17.   McGrath ("Discovery and Its Discontents: Discovery Protocols for Ubiquitous

Computing," Department of Computer Science University of Illinois Urbana-Champaign,

Urbana UIUCDCS-R-99-2132, March 25 2000) described and compared several

discovery services available at the time of invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R Maniwang whose telephone number is (703) 305-3179. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5484.

JM

MARC D. THOMPSON
MARC THOMPSON
PRIMARY EXAMINER